

REMARKS

Claims 1-5, 8 and 12-34 are canceled; claims 6, 9 and 10 are amended; and claims 6, 7 and 9-11 are pending in the application.

Claims 6, 7 and 9-11 stand rejected as being unpatentable over Gadgil. Applicant respectfully requests reconsideration of such rejections. Claims 6, 7 and 9-11 are amended to place the claims in independent form, but are otherwise unchanged.

Referring first to claim 6, such recites an atomic layer deposition method in which atomic layer deposition is utilized to form a material from first and second molecules. The claim further recites that the first and second molecules are provided in an atomic layer deposition reaction chamber at substantially non-overlapping times relative to one another.

Additionally, the claim recites that an electric field gradient is utilized to align the first molecules during the atomic layer deposition of the first molecules, and that the electric field gradient is removed prior to incorporating the second molecules into the material.

The cited reference of Gadgil does not disclose or suggest any process in which first molecules and second molecules are atomic layer deposited at substantially non-overlapping times relative to another to form a material, and in which an electric field gradient is utilized to align the first molecules and not the second molecules. Instead, to the extent that Gadgil describes processes in which electric fields are utilized during atomic layer deposition of materials, the reference implies that such electric fields are utilized for the entirety of the formation of the materials. Specifically, to the extent that Gadgil discloses utilization of an electric field during atomic layer deposition, the reference does

not disclose or suggest any process in which an electric field is provided during atomic layer deposition of a portion of a material and then removed during atomic layer deposition of another portion of the material. Thus, a person of ordinary skill in the art looking at Gadgil would learn that an electric field can be utilized during atomic layer deposition, but would find no motivation or suggestion for the claim 6 recited utilization of an electric field gradient during some of the atomic layer deposition associated with formation of a material, and not during other atomic layer deposition associated with the formation of the material. For at least this reason, claim 6 is believed allowable over the cited reference, and applicant therefore requests such allowance in the examiner's next action.

Claim 7 depends from claim 6, and is therefore allowable for at least the reasons discussed above regarding claim 6, as well as for its own recited features which are neither shown nor suggested by Gadgil.

Referring next to claim 9, such recites an atomic layer deposition method in which atomic layer deposition is utilized to form a material from first and second molecules. The claim further recites that the first and second molecules are provided in an atomic layer deposition reaction chamber at substantially non-overlapping times relative to one another. Additionally, the claim recites that an electric field gradient is utilized in a first configuration during the atomic layer deposition of the first molecules; and is utilized in a second configuration, different from the first configuration, during the atomic layer deposition of the second molecules.

The cited reference of Gadgil does not disclose or suggest any process in which first molecules and second molecules are atomic layer deposited at substantially non-

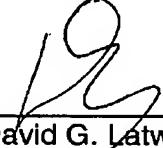
overlapping times relative to another to form a material; and in which an electric field gradient is utilized in a first configuration to align the first molecules; and is utilized in a second configuration, different from the first configuration, to align the second molecules. Thus, a person of ordinary skill in the art looking at Gadgil would learn that an electric field can be utilized during atomic layer deposition, but would find no motivation or suggestion for the claim 9 recited utilization of an electric field gradient in one configuration during some of the atomic layer deposition associated with the formation of a material, and in another configuration different from the first configuration during other atomic layer deposition associated with the formation of the same material. For at least this reason, claim 9 is believed allowable over the cited reference, and applicant therefore requests such allowance in the examiner's next action.

Referring next to claim 10, such claim, like the above-discussed claim 9, recites an atomic layer deposition method in which an electric field gradient is utilized in a first configuration during the atomic layer deposition of first molecules associated with the formation of a material; and is utilized in a second configuration, different from the first configuration, during the atomic layer deposition of second molecules associated with the formation of the material. Claim 10 is therefore allowable for reasons similar to those discussed above regarding claim 9. Accordingly, applicant requests such allowance in the examiner's next action.

Claim 11 depends from claim 10, and is therefore allowable for at least the reasons discussed above regarding claim 10, as well as for its own recited features which are neither shown nor suggested by Gadgil.

Respectfully submitted,

Dated: July 28, 2005

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